To: Cozad, David[Cozad.David@epa.gov]

From: Stoy, Alyse

Sent: Thur 12/17/2015 2:59:09 PM

Subject: FW: Summary of IB Costs by Option

Alyse Stoy

Office of Regional Counsel

U.S. EPA Region 7

(913) 551-7826 phone

(816) 807-3271 cell

stoy.alyse@epa.gov

From: Vann, Bradley

Sent: Thursday, December 17, 2015 8:53 AM

To: Field, Jeff <Field.Jeff@epa.gov>; Peterson, Mary <Peterson.Mary@epa.gov>; Juett, Lynn

<Juett.Lynn@epa.gov>; Stoy, Alyse <Stoy.Alyse@epa.gov>; Mahler, Tom

<mahler.tom@epa.gov>; Gieseke, Andrew <Gieseke.Andrew@epa.gov>; Barker, Justin

<barker.justin@epa.gov>

Subject: Summary of IB Costs by Option

Team,

The B&V preliminary cost estimate is now on the shared drive:

H:\REGION SHARE\West Lake Schedule Tracker\Subsurface Oxidation Event\Subsurface Barrier design documents\IB Preliminary Cost Estimate

| Broken down by option: |
|---|
| 1) Cooling Loop |
| Construction cost: \$13,703,800 |
| O&M at 30 yrs or total present worth = \$16,534,500 |
| System was engineered on 10ft ROIs with capacity for expansion (20 points without upscaling) – Cooling loop unit cost \$25,0000 for any additional points |
| 2) Static Wall |
| Construction cost: \$54,826,400 |
| O&M at 30 yrs or total present worth = \$59,461,800 |
| 3) Air Gap |
| Construction cost: \$165,652,000 |
| O&M at 30 yrs or total present worth = \$166,062,500 |
| 4) Sentinel Temperature Monitoring – This would be in addition to TMPs calculated within the individual options or for various locations north of existing Bridgeton points in Neck and North Quarry: \$87,000 (assumes 25 points at \$3,500/TMP) |

Bradley Vann - Remedial Project Manager U.S. Environmental Protection Agency Superfund Division Missouri/Kansas Remedial Branch 11201 Renner Blvd. Lenexa, KS 66219 Phone: 913-551-7611 Fax: 913-551-9611 Cell: 816-714-0331 From: Thiel, Matthew [mailto:ThielM@bv.com] Sent: Wednesday, December 16, 2015 10:50 PM To: Vann, Bradley < Vann. Bradley@epa.gov> Cc: Felkner, Gary L. < Felkner G@bv.com >; Almaleh, Lawrence J. (Larry) <<u>AlmalehLJ@bv.com</u>> Subject: West Lake Landfill ROM Brad: Enclosed are the documents related to this exercise. Thank you for the opportunity to continue work on this important project and please don't hesitate to reach out to us if we can be of further assistance. Regards, Gary, Larry, and Matt

MATT THIEL, P.E.*, PMP | Senior Structural Engineer

Black & Veatch Special Projects Corp. | 6800 W 115th Street, Suite 2200 Overland Park, KS 66211-2400

+1 913-458-6963 p | ThielM@BV.com

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